

BIOSC 1070: Human Physiology (UHC)

Spring Term 2025

Mon. & Wed 6:00 -7:15 pm Friday 3 :00-5 :00 pm

G8 Cathedral of Learning

Instructor: Jennifer Roccisana, Ph.D. (She/Her)

Office: A254 Langley Hall

Phone: (412) 624-7222; Email: jl189@pitt.edu

COURSE DESCRIPTION

This course will examine the signaling, cellular processes, and feedback loops of physiological systems in the human body that maintain homeostasis. Compensatory pathways and mechanisms to maintain homeostatic control will be investigated. Research related to the functioning of these systems will be emphasized throughout the course. Critical thinking about physiological concepts will be applied to predictive modeling and problem-based learning.

COURSE OBJECTIVES

By the end of this course, students will be able to:

- Demonstrate an integrated knowledge of physiological processes related to normal physiology, pathophysiology and pathology
- Explain how regulatory systems maintain homeostasis in biological systems and how disease and trauma disrupt these systems.
- Communicate an understanding of the interdependent physiology and regulatory mechanisms of diverse organ systems and predict how perturbations to systems alter function
- Critically evaluate scientific and patient data and use this information to interpret case studies as part of case and problem-based learning activities
- Work in groups and individually to explain complex physiological and disease processes
- Apply the use of the scientific method and quantitative reasoning to predictive models of physiologic relationships.

PREREQUISITES

Prior to taking BIOSC 1070, students must have completed the following courses:

- BIOSC 0160 or 0165 or 0716 or 0191 or 0180 or (BIOL 0102 or 0120) or (BIOENG 1071 or 1072)
- CHEM 0120 or 0720 or 0770 or 0970 or 0102 or (0112 and 0114)

Students must have achieved a grade of C or better in both courses.

This is a David C. Frederick Honors College Course, and it is encouraged that students consider the time and effort available to them for the successful completion of this course.

RECITATIONS

In addition to attending lecture on Mondays and Wednesdays, the session on Fridays will be used as a recitation section. Problem based learning cases and other graded work will be performed in recitation as well as presentations from invited speakers and field trips.

COURSE MATERIALS

WEBSITES

Canvas: <https://canvas.pitt.edu/courses/291518>

For help, please visit <https://teaching.pitt.edu/canvas/transition-resources/>

Registered students must have regular access to a fully functional WiFi-enabled device to access these platforms. Should a student not have access to a reliable internet connection and/or personal computing device that meets the University's recommended minimum standards, a limited number of mobile hotspots and/or laptops are available for temporary loan. For more information, call (412) 624-HELP (4357) or visit: <https://www.technology.pitt.edu/remotedevices>

TEXTBOOK

Optional: Guyton and Hall Textbook of Medical Physiology, 14th Edition. Elsevier ©2024.

A copy of this book has been put on [Course Reserves](#) for this course. Please consult Canvas for details of how to access this section's Course Reserves.

INSTRUCTIONAL TEAM

Medical Teaching Assistants

Mateo Coppola (he/him)

Elijah Brown (he/him)

Louise Hicks (she/her)

Ethan Wu (he/him)

Undergraduate Teaching Assistants

Elizabeth Rutenberg (she/her): ELR128@pitt.edu

Zayaan Tirmizi (he/him): ZST5@pitt.edu

OFFICE HOURS

Dr. R	Monday Wednesday	7:15 pm -8:15 pm	G8 CL
Elizabeth Rutenberg	Wednesday	2:00 pm -3:00 pm	329 CL
Zayaan Tirmizi	Monday	1:00 pm-2:00 pm	Hillman

HOW WE WILL WORK TOGETHER

Lecture

Prior to lecture, the slides will be posted on Canvas. During our class meetings, we will discuss complex concepts and ideas that are often difficult to understand by reading alone. To check your understanding, we will engage in the learning process by asking you to think deeply about the course material, share your comments, and answer questions during the class period.

The course materials made available to you are the intellectual property of the instructor. Posting any course material including any handouts, slides, practice exams, videos, lecture recordings, etc. to ANY website or sharing with any person not currently enrolled in this course without my expressed written permission is a violation of the academic integrity code. Any student caught sharing any course materials or recordings will be charged with a breach of academic integrity and appropriate actions will be taken with the Dean's office.

Unless specified on a DRS accommodation, lecture is not permitted to be recorded and no live audio recording will be made available.

Attendance: To understand the material, it is essential to attend class. Class will start on time, so please arrive promptly and put your devices on silent to minimize disruptions to others. If you must miss class, you are responsible for obtaining notes from other students and should contact the instructional team for assistance. Lecture recordings will NOT be available, and you are not permitted to record lecture in any format unless by prior expressed consent of the instructor in compliance with a DRS accommodation. **If you are ill for any reason, please do NOT come to class.** If you must miss a significant number of lectures due to illness, contact the instructor to make arrangements for assistance with course material.

The observance of religious holidays (activities observed by a religious group of which a student is a member) and cultural practices are an important reflection of diversity. As your instructor, I am committed to providing equivalent educational opportunities to students of all belief systems. At the beginning of the semester, you should review the course requirements to identify foreseeable conflicts with course material and assignments, but not exams, which must be dropped if they conflict. Please contact me within the first two weeks of the first class meeting to allow time for us to discuss and make fair and reasonable accommodations. No accommodations after this time period will be given.

Recitation

Each recitation session is required and will consist of active-learning problems that students will work on in teams with guidance from the Pitt medical school teaching assistants and undergraduate teaching assistant. Working in teams will enable students to learn from each other, draw from each other's expertise, and model the peer interactions required in any future career. Each team will consist of 4-5 students. Please bring a Wi-Fi enabled device to recitations. Graded work will be turned in by the beginning of the next recitation and will not

be accepted late. There is no makeup work for missed recitations, but you can drop one assignment.

Communication

Email

Please reserve emails to the instructor for personal issues or concerns with the class. Please DO NOT use email for content and/or procedural questions. For these types of questions, please use GroupMe or contact the UTA who will post an announcement so others can benefit from your question (and the answer). This also ensures your question will be answered and not lost in an inbox.

When emailing the instructor or UTA, students should send email from pitt.edu accounts. Email addressed from other sources may not make it through junk mail filters. **When emailing the instructor, be sure to sign the email and put the course name in the subject line.** The instructor will answer all emails within 24 hours during the week. Emails received after 5 PM on Friday may not be answered until Monday.

The instructor will email individual students using Outlook but check your Canvas notifications to make sure that you are able to receive communications for mass emails through Canvas. Your UTA may also elect to contact you using the email function in Canvas so please be sure that you are checking Canvas regularly.

Telephone

When phoning the instructor or leaving voicemail, be sure to identify yourself and the class you are taking. When leaving voicemail, be sure to give a phone number so that your call can be returned. Email communication is preferred although every attempt will be made to retrieve voice messages.

WHEN YOU NEED HELP

This class contains a large volume of work with many new concepts, is fast paced and relies on you keeping up with readings and assigned work, both suggested and required. If you find that you are falling behind, *please* let us know. Everyone is committed to your success, and every attempt will be made to get you the help that you need, but the first step to your strong command of the material and resultant excellent grade is reaching out when you don't understand or want clarification on any aspect of the course.

Please take advantage of office hours. This is a time to meet with the instructional team and ask any questions that you have. The instructor and UTAs have Office Hours and will be happy to help you. Medical school TAs are not available outside of in-person recitation and will not have office hours.

Tutoring information

Study Groups: Check GroupMe and UTAs

GroupMe: This is a space to ask questions. The UTAs will moderate, and the link is posted on Canvas announcements.

Study Lab: Study Lab is available to support your academic success through a variety of services including [peer tutoring](#), [academic coaching](#), and [online resources](#). Study Lab can be found in G-1 Gardner Steel Conference Center. Check their [website](#) for further information. Appointments are one hour long and can take place virtually or in-person. Students can schedule up to two appointments per week, per subject. Appointments can be made up to three weeks in advance. To make a one-on-one appointment, schedule online through the [Navigate Student App](#), call 412-648-7920, or chat with them on their [website](#).

Self-Care

[The University Counseling Center](#) is here for you: call 412-648-7930

If you or someone you know is feeling suicidal, call someone immediately, day or night:

University Counseling Center (UCC): 412 648-7930

University Counseling Center Mental Health Crisis Response: 412-648-7930 x1

Resolve Crisis Network: 888-796-8226 (888-7-YOU-CAN)

If the situation is life threatening, call the Police: On-campus: Pitt Police: 412-268-2121

Off-campus: 911

If you are facing financial difficulties, housing issues, medical issues, or struggling to cover your basic needs, there are [Pitt hardship resources](#) that can help.

HOW TO GET THE MOST FROM THIS COURSE

- Develop a system for planning and keeping track of all deadlines. Commit to spending 4 hours of studying for each in-class hour so that you are spending a minimum of 12 hours per week on this course.
- Schedule time to read the materials for each corresponding lecture before class. Don't just passively skim the materials – pay attention to what you are reading and reflect on what you are unsure about. Write down your questions.
- Listen carefully to videos and take notes in your own words. Draw pictures and models in your notebook to visualize concepts and build connections across content areas.
- Keep a running list of questions to ask at office hours or post to GroupMe.
- Minimize distractions when engaging with course content (turn off TV, put phone away, etc.). When working through problems, try to figure out the answer on your own first before looking it up or asking for help. Don't just arrive at an answer and move on; evaluate the question: explain *why* the correct answer makes sense and why other answer choices are *wrong*. You should be able to explain to someone else how you arrived at the correct answer.
- Attend class sessions prepared to work and review your notes after class.
- Interact with your peers to encourage each other to participate and learn. Forming study groups is highly recommended.

- Actively prepare for exams: Create your own study guides. Put your notes away and test how much you remember. Draw diagrams from memory and figure out the missing pieces. You will be asked to apply knowledge to novel questions.
- Organize the lecture material into flowcharts, diagrams, and step-by-step processes.
- Write your own practice exam problems.
- Include frequent breaks in your study time. Two 30 or 45-minute sessions are better than one marathon 2-hour session.
- You can learn the material, so be willing to make mistakes and take chances. Practice persistence and don't be afraid to be wrong on your first try.

ASSESSMENT

In-Class Activities

We will practice lecture content by working through problems and engaging in other high level thinking activities in active learning groups of 4-5 students based on where you are sitting that day. Each class period you will work with your neighbors to either side and in front or behind you to answer questions that will be available at the beginning of class. We will circulate to help, and we will review difficult questions in class. While you will work with others, you are responsible for filling in your own activity sheet on paper or Canvas and should arrive at your answers independently of the peer learning that takes place. Activities will be submitted by the end of class (7:15 pm) and will not be accepted late. Complete submissions are worth one point and no makeups are available, but there are 3 drops to cover absences. If you are never absent, then the best 20 scores out of 23 will be used for your grade.

Recitation Activities

Recitation will provide further opportunities for applying concepts to Problem Based Learning cases. We will work in groups of 4-5 and you will pick your groups at the first session. In addition to working through prompts, developing strategies for critical analysis of scientific data, and applying physiology principles to problems, we will also have Exam Review sessions before each exam and Review of Exam sessions after the exam where you will have the opportunity to see which questions you missed. We will go over commonly missed questions in recitation, and you will have the chance to ask the Instructor, Medical Students and UTA questions about the material that you missed so that you are confident about your understanding before moving on to new material.

Cases that you work on in groups will be published at the start of the recitation session and must be submitted as a group by the end of the next recitation session. They will not be accepted late. Complete submissions are worth 30 points and no makeups are available, but there is one drop to cover an absence. If you are never absent, then the best 13 scores out of 14 will be used for your grade. Other sessions are devoted to field trips which will not be graded.

Homework

Homework exercises will consist of comprehension and knowledge questions based on given materials and content that is explained in lecture and is meant to make sure that you are

keeping up with understanding the content. These questions will be available at the end of the day the preceding Friday and will be due before recitation each Friday. This work is to be completed and submitted in your groups. Complete assignments are worth 10 points and will not be accepted late. There are no makeup assignments available but there is one drop to cover an absence. If you are never absent, then the best 10 scores out of 13 will be used for your grade.

Exams

There are 5 exams: 4 during the semester and a Final during Finals Week.

Each midterm exam is worth 50 points, will be in-class and will last for the full class time (1 hour and 15 minutes).

Dates for the exams are listed in the course schedule and will not change, so please plan accordingly. No makeup or alternative dates will be offered, but the lowest exam will be dropped. This includes missing exams for legitimate reasons including religious observances, military obligations, university athletic competitions, illness, bereavement, etc.

Students who miss more than one exam must provide written documentation from an established healthcare practice to take a make-up exam for a second missed exam. Please notify the instructor before the exam if possible but no later than 24 hours after the exam. All make-up exams for medical reasons will be essay and must be completed within one week.

Exams, aside from the Final, are not cumulative, but later material does tend to build on concepts taught earlier in the semester since physiological systems are integrative. The instructor reserves the right to retest on earlier content that was problematic for students on previous exams, so you have another chance to demonstrate your understanding on the Final.

Instructions for exams

1. Prior to the start of the exam, place all backpacks, electronic devices (calculators, headphones, cell phones, iWatches or any other Apple device, etc) and personal items stowed near you.
2. On exam day please spread out. Leave seats next to you and behind you open.
3. Please consider your health prior to the exam. Once the exam has started, you must hand in your exam (and it will then be graded as is) if you need to leave the lecture hall to use the restroom, or for any other reason.
4. You may keep Kleenex, erasers, extra writing utensils and drink bottles but not food with you during the exam.
5. The exam proctors and I will only answer clarifying questions if we can do so without influencing answers
6. Do not begin the exam (that is, turn over the exam) until you are told to start. Failure to comply will result in an automatic 0 score for the exam.
7. It is your responsibility to have a writing implement and a spare. Extra pencils or other writing implements will not be provided.
8. Write your name and Pitt ID (eg., abc123) neatly on exam paper. You will indicate your answers directly on the exam paper.

9. Academic integrity violations will be promptly reported.
10. Read each question carefully and make sure you understand the question. Do your best and Good Luck!

Exams will not be returned but students will have a chance to review their exams during recitation. You will put away all electronic devices and no images can be taken, nor can any questions be reproduced in full during exam review- this is a violation of academic integrity.

Challenging Exam Questions: If you believe that the answer you gave is more correct than the answer listed on the answer key, you may challenge one question per exam. Question challenges must be submitted within 24 hours of the exam review session. Any challenge submitted after that will not be accepted. All exam challenges must be submitted in writing to the instructor via email. Exam challenges will be evaluated within 7 days of email receipt. Challenges are to be factual and explain why your answer is scientifically valid. You must justify why your answer is either equally correct to or superior to the correct answer indicated on the answer key. Explanations based on why you dislike the question will be discarded.

The Final Exam: Day, Time and Location is posted on the course schedule found on the syllabus tab on Canvas. There will be no make-up exams for the final and no early finals will be given for any reason. The final can be the exam that is dropped, and you do not have to take the Final to drop it.

Students who have three or more finals scheduled for the same day and wish to reschedule one or more of the exams MUST follow the registrar [procedure for exam conflicts](#). The last day to submit Final Exam Schedule Conflict [paperwork](#) is Tuesday, March 11, 2025. Students who do not follow this procedure will be expected to take the Final Exam at the scheduled time.

Assessment Weighting

Your final grade will be based on your individual accrued points divided by the total number of course points. This percentage will then be applied to the grading scale below to determine the letter grade that is reported to the Registrar.

Assessment	Number	Points Each	Number of Drops	Total Points
In-Class Activities	23	1	3	20
Homework	14	10	1	130
Recitation PBL	11	30	1	300
Exams	5	50	1	200
Course Total				650

The Grading Scale

This course is graded using an absolute grading scale. This means that you are not in competition with other students and the average class score does not affect your grade.

A+ : 98-100%	B+ : 88-89.99%	C+ : 78-79.99%	D+ : 68-69.99%
A : 93-97.99%	B : 83-87.99%	C : 73-77.99%	D : 63-67.99%
A- : 90-92.99%	B- : 80-82.99%	C- : 70-72.99%	D- : 60-62.99%

A letter grade of a "C" is the lowest acceptable grade for the course to count as part of a BIOSC major. Final grades are not subject to negotiation.

It is your responsibility to make sure that any course points due to you are correctly awarded by 7 days after the due date. After that time missing or incorrect points will not be awarded.

Leaving the Class

If circumstances arise that prevent you from staying current with the material, then you should consider withdrawing from the course. Please note the following dates:

Tuesday, January 21 – Add/Drop period ends

Tuesday, January 28 – Extended Drop period ends

Tuesday, March 11 – Deadline to submit Monitored Withdrawal forms

G grades are given when students who have been attending a course and have been making regular progress are prevented by circumstances beyond their control from completing the course after it is too late to withdraw. If you wish to petition for a G grade, you must submit a request for this grade in writing to the instructor, and you must document your reason(s). You will be required to make arrangements for the specific tasks that you must complete to remove the G grade within one calendar year of being issued a G grade, otherwise it will convert to NC which cannot be changed.

COURSE POLICIES

Academic Integrity

Students in this course will be expected to comply with the [University of Pittsburgh's Policy on Academic Integrity](#). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

Cheating/plagiarism will not be tolerated. A minimum sanction of a zero score for the assignment or exam will be imposed.

Violations of academic integrity include (but are not limited to):

- The use of ANY electronic device during exams,
- Cheating by any method including looking at others' work
- Informing other students of exam content
- Not completing your own work for individual assignments including plagiarizing another current or former student's work
- Engaging in any activity that would dishonestly or fraudulently improve your results, including receiving support from any other individual (whether enrolled in this course or not) or any unauthorized sources.
- Misrepresenting your identity while taking exams, sharing exam questions with any other individual during or after the exam, taking pictures of exam questions at any point during or after the exam or reproducing the exam questions in any way.
- Posting course materials on the internet or any other place, including all note-sharing websites (e.g., Coursehero, Studyblue, StudySoup, Chegg, Koofers, etc.), and any instance of plagiarism.
- Submitting work containing any content generated by Artificial Intelligence (AI) tools when not explicitly directed to do so by the instructor.

To learn more about Academic Integrity, visit the [Academic Integrity Guide](#) for an overview of the topic. For hands- on practice, complete the [Academic Integrity Modules](#).

Disability Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services](#) (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

Testing center services must be scheduled 72 *business* hours prior to the exam. For the final exam it is 7 *business* days. Students must take the exam on the same day and time as the rest of the class. **Students who miss the deadline must take the exam in class and will NOT receive any additional time or accommodations.** Since exam dates will not change, it is to your advantage to schedule all exams at the beginning of the term so you will not miss the deadline.

Classes Meeting During University-wide Closure

As articulated in the [University-wide Closure and Class Cancellation Policy](#), it is the policy of the University of Pittsburgh to remain open, but in rare instances, circumstances beyond the University's control may necessitate a closure of the University. Such circumstances may include severe weather, power outage, water main issues, active shooter protocol and the like.

If feasible during a closure, I intend for our class to meet remotely at its regularly scheduled time. Refer to our class attendance policy if you are unable to attend. The class will meet by Zoom and the Zoom link will be listed under the Zoom tab found on the Global navigation bar of the course Canvas.

Email

Each student is issued a University email address (username@pitt.edu) upon admittance. This email address may be used by the University for official communication with students. Students are expected to read email sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an email forwarding service that allows students to read their email via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their email from their pitt.edu address to another address do so at their own risk. If email is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University email address. To forward email sent to your University account, log into your account, click on 'Edit Forwarding Addresses', and follow the instructions on the page. Be sure to log out of your account when you have finished. The full Email Communication Policy can be viewed at <https://www.policy.pitt.edu/ao-15-e-mail-communication-policy-formerly-09-10-01>

Diversity and Inclusion

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. I ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed [online](#). You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412) 648-7930.

Gender Inclusion

Language is gender-inclusive and non-sexist when we use words that affirm and respect how people describe, express, and experience their gender. Just as sexist language excludes women's experiences, non-gender-inclusive language excludes the experiences of individuals whose identities may not fit the gender binary, and/or who may not identify with the sex they were assigned at birth. Identities including trans, intersex, and genderqueer reflect personal descriptions, expressions, and experiences. Gender-inclusive/non-sexist language

acknowledges people of any gender (for example, first year student versus freshman, chair versus chairman, humankind versus mankind, etc.). It also affirms non-binary gender identifications and recognizes the difference between biological sex and gender expression. Students in this course may choose to share their preferred pronouns and names, and these gender identities and gender expressions will be honored.

Please go to accounts.pitt.edu to fill in your personal information including preferred name and pronouns. This information will also automatically populate Name Coach, PeopleSoft and Canvas. Please consider posting a photo to Canvas and recording the pronunciation of your name in Name Coach.

Syllabus Changes

This syllabus, like our course, should be seen as an evolving experience, and occasionally changes might become necessary. As instructor, I reserve the right to modify this syllabus, with the stipulation that any changes will be communicated to the entire class clearly and in writing.

Copyright Notice

These materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to university policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See [Library of Congress Copyright Office](#) and the [University Copyright Policy](#)

BIOSC1070 Physiology Spring 2025 Course Schedule

DATE	LECTURE TOPIC	RECITATION TOPIC
Wednesday January 8 th	Homeostatic Regulation In-Class Activity 1	
Friday January 10 th		PBL 1: Fluid Homeostasis Homework 1 due 1/13
Monday January 13 th	Neural Mechanisms In-Class Activity 2	
Wednesday January 15 th	Neural Control In-Class Activity 3	
Friday January 17 th		Homework 2 PBL 2: Neurophysiology
Monday, January 20 th	MLK- NO CLASS	
Wednesday January 22 nd	Muscle Physiology In-Class Activity 4	
Friday January 24 th		Homework 3 PBL 3: Muscle Physiology Exam Review
Monday January 27 th	Contraction Dynamics In-Class Activity 5	
Wednesday January 29 th	Exam 1	
Friday January 31 st		Homework 4 Review of Exam PBL 4: Circulation Adam Straub
Monday February 3 rd	Hemodynamics In-Class Activity 6	
Wednesday, February 5 th	Cardiac Dynamics In-Class Activity 7	
Friday February 7 th		Homework 5 PBL 5: Cardiac Physiology Ankur Doshi
Monday February 10 th	Control of Cardiac Function In-Class Activity 8	
Wednesday February 12 th	Respiratory Mechanics and Ventilation In-Class Activity 9	
Friday February 14 th		Homework 6 Exam Review Emerging Technology Lab/EKG
Monday February 17 th	Gas Exchange and Control of Breathing In-Class Activity 10	
Wednesday February 19 th	EXAM 2	
Friday February 21 st		Homework 7

		Review of Exam PBL 6: Pulmonology John Moon
Monday February 24th	Clearance and Glomerular Filtration In-Class Activity 11	
Wednesday February 26 th	Tubular Function In-Class Activity 12	
Friday February 28 th		Homework 8 PBL 7: Renal Physiology Remote Lecture: John Kellum
Monday March 3rd	SPRING BREAK- NO CLASSES	
Wednesday March 5 th	SPRING BREAK- NO CLASSES	
Friday March 7 th	SPRING BREAK- NO CLASSES	
Monday March 10 th	Digestion and Motility In-Class Activity 13	
Wednesday March 12 th	Control of Digestive Processes In-Class Activity 14	
Friday March 14 th		Homework 9 Exam Review PBL 8: GI Physiology Evan Ray
Monday March 17 th	Exam 3	
Wednesday March 19 th	Liver Physiology and Integrative metabolism In-Class Activity 15	
Friday March 21st		Homework 10 Review of Exam PBL 9: Liver Physiology Emerging Technology Lab
Monday March 24th	Metabolic Control In-Class Activity 16	
Wednesday March 26 th	Hormone Communication In-Class Activity 17	
Friday March 28 th		Homework 11 Exam Review PBL 10: Endocrine Disorders Erica Braverman
Monday March 31 st	Endocrine Regulation In-Class Activity 18	
Wednesday April 2 nd	EXAM 4	
Friday April 4 th		Homework 12 Review of Exam PBL 11: Immune Function
Monday April 7 th	Innate Immunity In-Class Activity 19	

Wednesday April 9 th	Adaptive Immunity In-Class Activity 20	
Friday April 11 th		Homework 13 Bernard Macatangay
Monday April 14 th	Neoplasia In-Class Activity 21	
Wednesday April 16 th	Exercise Physiology In-Class Activity 22	
Friday April 18 th		Homework 14 WISER : Scenarios
Monday April 21 st	Pathophysiology In-Class Activity 23	
Wednesday April 30 th	Final Exam	
Friday May 1 st	Final Grades Available	